



**ENVIRONMENTAL REVIEW
FOR CLEAN WATER SRF LOANS**
Water Division/Wastewater Engineering Bureau



RSA/Rule: Env-Wq 508

I. PROJECT APPLICANT: Town of Allenstown
Merrimack County

ADDRESS: Allenstown Sewer Commission
35 Canal Street
Allenstown, NH 03275

PROJECT: Library Street Force Main & Suncook Pond Pump Station

SRF PROJECT NUMBER: CS-330104-05

II. INTRODUCTION

The Town of Allenstown, New Hampshire has applied for a Clean Water State Revolving Fund (CWSRF) loan through the State of New Hampshire Department of Environmental Services in accordance with provisions of Chapter Env-Wq 500 rules of the Department. These rules prescribe procedures for the application process concerning the CWSRF of the department. This document will discuss the requirements of Part Env-Wq 508 of these rules, the environmental review.

III. BACKGROUND

The Allenstown Wastewater Treatment Facility (WWTF) located in Allenstown, New Hampshire provides treatment of wastewater from the Towns of Allenstown and Pembroke. Construction of the existing WWTF and the collection systems serving Allentown and Pembroke was completed in 1977. The existing wastewater collection system in Allenstown includes approximately 8 miles of sanitary sewers and approximately 240 manholes. The collection system in Allenstown includes gravity sewers ranging in size from 8-inches thru 15-inches in diameter, which are separated from the storm drain collection system. More than half of Allenstown's wastewater flows beneath the Suncook River into the Town of Pembroke, where it combines with Pembroke's wastewater and then crosses back beneath the Suncook River to the Allenstown sewer system and ultimately reaches the Allenstown WWTF for treatment.

This project has been part of the Allenstown Sewer Department Capital Improvement Plan for over 20 years. A 410-foot long section of the force main was previously installed and capped in 2004 along Main Street from East Webster Street to an existing sewer manhole at the intersection of Main Street and Canal Street as part of a NHDOT project to reconstruct a portion of Main Street which is a State roadway. In addition to

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the CIP, this project was identified in an Infiltration/Inflow Study report dated August 2009 prepared by Hoyle, Tanner & Associates, Inc.

IV. PURPOSE AND NEED

The project includes construction of a new wastewater pumping station between Library Street and the Suncook River in Allenstown in order to eliminate a sewer (siphon) crossing beneath the Suncook River and remove wastewater flow from Allenstown from the collection system in Pembroke. This project also includes replacement of approximately 1,300 linear feet of existing clay sewer pipe on Library Street with new PVC sewer pipe and construction of approximately 1,600 linear feet of new force main to be connected to the existing force main segment previously installed.

The purpose of this project and the proposed pump station is to divert the existing wastewater flow crossing beneath the Suncook River into Pembroke and keep it entirely within Allenstown. This would eliminate the river crossing and its potential environmental hazards, reduce potential infiltration and inflow, eliminate the liability of the river crossing pipes, and eliminate the need to meter wastewater flows from Allenstown into Pembroke and from Pembroke back into Allenstown. It would also free up hydraulic capacity in Pembroke's sewer system currently being used by wastewater flow from Allenstown.

V. ALTERNATIVES ANALYSIS

The basic alternatives for this project are to either complete the project or not complete the project (i.e. No Action). Within the project, alternatives were considered for location of the proposed pump station and routing of the force main and utility lines (water, gas, and electric) between Library Street and the pump station.

- Pump station location. An evaluation was made for the option of locating the proposed pump station near the existing flow metering manhole on the exiting 15-inch gravity sewer. This alternative was not feasible due to insufficient space, impacts closer to the Suncook River (Shoreland permit and impacts), visual impacts, and the adverse impacts on access through the driveway serving the existing Suncook Pond Estates retirement housing development. Location of the pump station as presently proposed avoids all of the aforementioned adverse impacts and avoids additional easements on the Suncook Pond Estates retirement housing property since the pump station is proposed to be located on an adjacent property (different property owner).
- Force main and utility line location. There are only two options available for routing the force main and utility lines between Library Street and the proposed pump station: the routing presently shown on the site plans and an alternative route between lot #47 and lot #46 north of the proposed route location. There are significant space constraints for the northerly route because the pipelines would have to be constructed between the footing of a commercial building and a driveway retaining wall. This route would require difficult construction using small construction equipment and require significantly more time and cost than the southerly route selected. The northerly route would also create significant adverse impacts to the affected

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properties and require significantly more difficult temporary and permanent easements. The option of locating the force main within the steep embankment along the Suncook River was also considered but deemed not to be feasible due to the extremely difficult construction required (steep embankment), multiple easements required, and significant impacts to Shoreland areas.

- No action. This project has been on the Town's Capital Improvement Plan for over 20 years. Currently, wastewater crosses beneath the Suncook River from Allenstown into Pembroke via a 2-barrel siphon. The river crossing is considered a liability due to the potential for infiltration as well as the potential adverse environmental impacts to the Suncook River (a 4th order stream) if a structural failure of the pipes should occur. The current arrangement also requires that flow be metered leaving Allenstown into Pembroke and again when it leaves Pembroke and reenters Allenstown in order to assess and track flow volumes for usage and billing purposes. Further, the wastewater flow from Allenstown uses up hydraulic capacity in Pembroke's collection system. The "No Action" alternative would keep the existing unsatisfactory situation in place.

The preferred alternative is to complete the project in the layout and alignment shown on the accompanying site plans and described in Section VI.

VI. DETAILS of PROJECT

The project includes design and construction of:

- A new wastewater pump station;
- 1,600 linear feet of new force main;
- 210 linear feet of new 18-inch gravity interceptor sewer;
- Replacement of 1,350 linear feet of existing 8-inch clay sewer on Library Street with new 8-inch PVC sewer.

The pump station includes a concrete masonry block building structure (approximately 20'x26'), a 10'x10' concrete wet well, a duplex pump system with controls and the associated electrical, ventilation, heating and lighting systems. An emergency generator will be housed inside the pump station building. The wet well will include bypass piping to allow for bypassing the pump station for emergencies or maintenance. The new interceptor sewer, force main, water service, gas service and electrical service piping, conduits and wiring will be constructed by open-cut trench construction.

The total area of temporary disturbance on private property will be approximately 28,000 square feet (0.64 acre). The total area of temporary disturbance within the roadway will be approximately 25,000 square feet (0.57 acre). The disturbance areas will not be adjoining. The total area of permanent disturbance from the pump station and access driveway will be approximately 2,600 square feet.

In order to construct the force main and utility lines between the pump station and Library Street it will be necessary to remove two existing maple trees, and the area for the pump station will need to be cleared of scrub-brush. It is anticipated that the site clearing and tree removal work will be done in April-

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May of 2019. No culverts will be installed as part of this project. Temporary and permanent easements will have to be obtained on four privately-owned lots for construction of the project.

The total project cost for the proposed project is estimated to be \$1,616,000.00.

VII. ENVIRONMENTAL CONCERNS AND MITIGATION

The environmental concerns and impacts of the project are minimal. No adverse environmental impacts are anticipated from the project. The primary impacts are short-term impacts which will affect the area only during the period of construction. The following categories of impacts describe the potential negative and positive effects anticipated from the project and the measures to be taken to mitigate adverse impacts during construction:

Air: Air impacts will be limited to some dust created during the construction portion of the project. Dust will be prevented and controlled through the use of water or dust retardant chemicals. No long-term air impacts are anticipated; mitigation measures will be employed if needed.

Noise: The noise from construction activities should be limited in duration and will be generally limited to normal working hours Monday - Friday. Noise impacts, if encountered, will be minimized by scheduling work to reduce effects in the area. No long-term noise impacts are anticipated.

Surface Water, Groundwater, Wetlands, and Shoreland: There should be no significant groundwater impacts from the project. No wetland impacts are anticipated. There will be impacts to Shoreland setback areas that require a Shoreland permit for construction of the project. A Construction General Permit will be required.

Erosion will be minimized by using proper erosion control methods such as silt and erosion control socks and other measures and rapid re-seeding of disturbed areas. Best management practices for control of stormwater and runoff will be implemented and maintained during construction of this Project. All appropriate permits shall be obtained from local, state and federal agencies as necessary.

Floodplain: The proposed pump station and utility lines connecting to it will be located outside of the 100-year flood level. Part of the access drive for the pump station will be located within the 100-year flood zone. Alternatives, including those that involve locating this project outside of the floodplain, have been considered; however, locating the project in the existing area is the most practicable alternative. The project has been designed to minimize the potential for loss or risk due to flooding and to minimize potential harm to or within the floodplain.

Designated River: This project is not located within a designated river corridor requiring contact with an LAC.

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Plants & Wildlife: A Natural Heritage Bureau DataCheck was conducted. A plan has been approved by NH Fish and Game to address the four species of concern that were identified to be in the area.

Voluntary conservation measures will be employed, where appropriate, in order to reduce impacts to the Northern Long-eared Bat as outlined under item 2 on page 3 of the “Optional Framework to Streamline Section 7 Consultation for the Northern Long-Eared Bat”.

Recreation and Historic: The Division of Historical Resources has reviewed the project. No impacts to recreational or historic areas are anticipated.

Social and Economic: The social and economic impacts from the project are expected to be favorable. The financial impact on the ratepayer may be reduced for this project through the use of the State Revolving Loan Fund as opposed to other funding sources.

Whereas this project constitutes only a minor project and no significant environmental impacts are anticipated, a Finding of No Significant Impact (FONSI) is proposed.

VIII. INTERGOVERNMENTAL REVIEW

Results from the Intergovernmental Review, coordinated by the New Hampshire Office of Strategic Initiatives, were received on January 3, 2018. The results summary indicates concurrence with the proposed project.

IX. PUBLIC REVIEW

The voters of the Town of Allenstown approved a warrant article authorizing funding of the Library Street Sewer Replacement and Suncook Pond Pump Station and Force Main project in the amount of \$1,616,000 at the Allenstown Town Meeting held on March 16, 2017.

A public notice will be published by the Town of Allenstown and a thirty-day public comment period will be held in accordance with the CWSRF rules.

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